

THE CANADIAN INSTITUTE.

Council Office,

TORONTO, JUNE 1, 1852.

SIR,—

In pursuance with the instructions of the acting President and Council of the CANADIAN INSTITUTE, I have the honor to transmit to you the accompanying papers:—

First—A brief outline of the objects of the CANADIAN INSTITUTE, for the information of those who may not as yet be acquainted with its establishment. The Council will be much gratified and encouraged by evidences of extended support from the various sections of the Province; and it has instructed me to transmit copies of the Regulations, and other information to all who may express such a desire.

Second—A series of enquiries relative to the Indian remains, in the form of Mounds or Indian Intrenchments, which are known to exist in some localities, and are supposed to be of not very uncommon occurrence in various parts of Upper Canada.

I am directed to state, that you will confer a favor, which will be gratefully acknowledged, by communicating information with respect to any of these interesting objects which may occur in your neighborhood, or of which you may have heard, and to call your attention to the importance of losing no opportunity of collecting particulars, and making the surveys or measurements indicated, while such remains are in tolerable preservation.

Third—Enquiries regarding the various kinds of Limestones throughout the Province.

Fourth—The Prospectus of "THE CANADIAN JOURNAL," for the early publication of which active steps are now being taken. It will be the medium of publication of the transactions of the Institute, and published and edited under the controul of the Council.

I have the honor to be

Your obedient Servant,

SANDFORD FLEMING,
SECRETARY.



INCORPORATED BY ROYAL CHARTER.

President :

W. E. LOGAN, F.R.S., F.G.S., (Director of the Geological Survey of Canada.)

First Vice President :

CAPTAIN LEFROY, R.A., F.R.S., (Director of the Magnetic Observatory, Toronto.)

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PROFESSOR CROFT,
EDWARD L. CULL,

DR. MELVILLE,
WILLIAM THOMAS,

Together with the Presidents and other Officers of the Institute.

Temporary Office of the Council--67 Yonge Street, Toronto.

Although the CANADIAN INSTITUTE has been for some time in operation, and numbers amongst its members persons scattered over many parts of the Province, its objects have hitherto been circumscribed within such narrow bounds, that the accompanying papers may fall into the hands of persons who are ignorant of its formation: the Council, therefore, deem it advisable to accompany them with a brief outline of the purposes for which this Society has been founded, and for which it has been permanently established by Royal Charter, under the title of the "Canadian Institute." The first section of the Regulations drawn up in conformity with, and to carry out the intention of the Charter of Incorporation, sets forth that the "Institute has been established for the purpose of promoting the Physical Sciences, for encouraging and advancing the Industrial Arts and Manu-



factures, for effecting the formation of a Provincial Museum, and for the purpose of facilitating the acquirement and the dissemination of knowledge connected with the Surveying, Engineering and Architectural Professions ;" but the nature of the Institution is more fully expounded in the address of the acting President at the late annual conversation, and its character cannot be better explained than by alluding to a few passages therein :—

"It aspires," said the Vice President, "as the Report just read informs us, to supply to Upper Canada, the place of those societies, which every other civilized country possesses under the denomination of literary, or philosophical, or professional societies or academies, or whatever title they may prefer, to express ends which are essentially the same in all ; but it aims to do this modestly and gradually, availing itself first, and principally, of those elements which offer themselves spontaneously in the progress of the country. * * * That there should be in Upper Canada, a centre to which the treasures of experience, observation and discovery, of this generation should naturally flow : at which, as in a focus, the attainments of her most gifted sons, may, by degrees, be brought to bear on objects of universal interest, and by whose example and influence those pursuits may be encouraged, which extend the bounds of human knowledge, while they promote, in a high degree, the happiness of all who follow them. * * * Turn which way we will, enquiries meet us, on which an active mind may employ its best energies, and yet glean but the surface treasures of that exhaustless mine which Art and Nature offer to human industry." Again, with reference to the particular enquiries which accompany this communication, it was added, "Every year the plough is obliterating the last traces of our predecessors upon this soil. Every year the axe lays low some invaluable witness to the ages which have elapsed since populous villages of another race were scattered far and wide through our now lifeless forests. We are fast forgetting that the bygone ages even of the new world were filled by living men, and fast losing by neglect, all those delicate links in the chain of research, by which the Archæologist of another generation, may hope to trace out the origin and the fortunes of a great branch of the human family. If it has been found, even in Great Britain, that scarcely five per cent. of the rare and interesting remains from time to time brought to light, are recoverable after a few years, unless they are lodged in some public museum, we may be very sure that a proportion even larger, of such remains as Canada furnishes, are lost for want of such an institution. * * * When the last *Pine-wood* of Chinguacousy (Chinqua-konse sèbi—a little Pine) is levelled ; when art has provided another outlet than the (Saugeen) river mouth in Nottawasaga ; when a few generations more shall have hopelessly corrupted the spelling and pronunciation of those, and of many other aboriginal names still to be found on the map, of all monuments of a race and language, perhaps, the most enduring : how will philologists puzzle themselves over difficulties which hundreds now living could remove, but which to them may be as inscrutable as the language of Nineveh. I allude to these subjects here, because they offer an immediate field for the exertions of the Institute, and is one which it is peculiarly able to enter upon, as including among its members so many gentlemen whose pursuits must be constantly bringing them into contact with objects of the kind referred to." Independent of the advantages which gentlemen of the Engineering profession may derive from such an Institution when Canada is embarking so extensively in the construction of works which demand for their accomplishment the exercise of high scientific acquirements, there are many persons throughout the Province, both amateurs and practical men, whose leisure hours are spent in the pursuit of objects kindred to those of the Canadian Institute, and whether the results of their labours be mechanical inventions or discoveries in natural history, they are in a great measure lost for want of such a society. "It is in the refreshing influence of mind upon mind—in the reunion of those whom separate pursuits or different walks in life tend otherwise to put asunder—in holding up to practice the mirror of theory—in animating theory with the life of practice—that societies like this, when actively conducted, exercise so beneficial an effect. Who can tell how much encouragement may be given by a word of sympathy : how often a friendly hint may clear up a difficulty, or timely discussion avert a blunder. Or what essential moral benefit it may be to some minds, in teaching lessons of modesty, of diligence, or of patience, to be brought into contact with other minds of greater gifts and higher attainments, and learn that the place they aspire to must be earned before it can be enjoyed : that there is no royal road to knowledge in any of its branches." The Council is advised that many persons throughout the Province may have some hesitation in signifying their desire to become members, thinking that only certain classes may be admitted. Such is not the case. The Society was first established, it is true, for the advancement of those professions above mentioned, but since its objects have been extended by the Charter of Incorporation, the Institute embraces among its members persons of all grades and all pursuits. "It is the distinctive character of this Institute,

and in my opinion, the best pledge for its healthy and vigorous progress, that its commencement has been eminently practical. The gentlemen who founded it, satisfied a want of their own, before they extended their thoughts to a provision for a public want, and for posterity." There are three classes of persons who may with propriety join the Institute,—1st. Those who by their attainments, researches, or discoveries, can promote its objects by their union of labour, the weight of their support, and the aid of their experience. 2nd. Those who may reasonably expect to derive some share of instruction from the publication of its proceedings by the contemplated Journal; and an acquaintance with the improvement in Art and the rapid progress of Science in all countries, a marked feature of the present generation. 3rd. Those who, although they may neither have time nor opportunity of contributing much information, may yet have an ardent desire to countenance a laudable, and to say the least, a patriotic undertaking—a wish to encourage a Society, where men of all shades of religion or politics may meet on the same friendly grounds; nothing more being required of the members of the CANADIAN INSTITUTE than the means, the opportunity, or the disposition, to promote those pursuits which are calculated to refine and exalt a people.

INDIAN REMAINS.

Although the subject of Indian mounds and intrenchments has of late years received much attention in the neighbouring States, and it has been shewn by the investigations of Mr. Squier* and others, that they exist in considerable numbers in western New York—particularly in the region occupying the first and second plateaux round Lake Ontario—Upper Canada, a part of the same region geographically, and peopled originally by the same, or nearly allied races, remains to a great degree a *terra incognita* with respect to this enquiry. The Council of the CANADIAN INSTITUTE deem it one particularly worthy of the attention of those persons who, by their pursuits, are brought into contact with such objects; and from the professedly practical character of their body, one of those also upon which authentic and valuable information may be looked for, at the hands of its members, as an early result of its incorporation.

To one county alone, of the State of New York, (Jefferson County,) Mr. Squier was enabled to discover fifteen inclosures or intrenchments, and he has estimated the total number which formerly existed in that state, at from two hundred to two hundred and fifty. "Were these works," he remarks "of the general large dimensions of those of the Western States, their numbers would be a just ground of astonishment. They are, however, for the most part, comparatively small, varying from one to four acres, the largest not exceeding sixteen acres in area. The embankments, too, are slight, and the ditches shallow: the former seldom more than four feet in height, and the latter of corresponding proportions. The work most distinctly marked exists in the town of Oakfield, Genesee County; it measures, in some places, between seven and eight feet from the bottom of the ditch to the top of the wall. In some cases the embankment is not more than a foot in height, and the trench of the same depth. Lest it should be doubted whether works so slight can be satisfactorily traced, it may be observed that a regular and continuous elevation of six inches may always be followed without difficulty."

"In respect to position," adds the same writer, "a very great uniformity is to be observed throughout; most occupy high and commanding sites near the bluff edges of the broad terraces by which the country rises from the level of the lakes. When found on lower grounds, it is usually upon some dry knoll or little hill, or where banks of streams serve to lend security to the position. A few have been found upon slight elevations in the midst of swamps, where dense forests, and almost impassable marshes, protected them from discovery and attack. In nearly all cases they are placed in close proximity to some unfailing supply of water, or running streams. Gateways, opening toward these, are always to be observed, and in some cases guarded passages are visible."

To this clear and concise description little need be added. The enquiries proposed by the CANADIAN INSTITUTE, are the following:—

* Smithsonian contributions to knowledge: *American Journal*, Vol. XI., No. 33.

1. Name of township and number of lot in which any Intrenchment or Mound exists.
2. The area and dimensions, from actual measurement, and if possible, a plan, with sections.
3. A general description of the situation and neighbourhood.
4. Are there any trees growing on the artificial earthwork, if so, their size, and number of rings of annual growth in the largest *stump* to be found? To cut a tree down to ascertain this fact, unless they are numerous, would be to destroy a very valuable standing evidence to the antiquity of the work.
5. Are there still, or *were* there, previously to clearing, trees of large size in the area of the work?
6. Is the place known to the Indians in the neighbourhood by any name? Have they any traditions respecting it?
7. Are stone axes, arrow-heads, weapons or utensils, ever ploughed up in the vicinity? Is broken pottery common? Have the remains of concealed stores been discovered? Specimens of any of these objects will be highly valued.
8. Are there evidences of the place having been surrounded with posts or pickets?
9. Have utensils or weapons of copper or iron ever been discovered, leading to the inference that the place was occupied since the intercourse of the natives with Europeans began?
10. Specimens of Indian skulls or crania having evidence of antiquity will be valued. But the Council distinctly disown any wish or desire to disturb native burial places of comparatively recent date, and strongly recommend that they be treated with respect.
11. Are there any mounds or tumuli of artificial construction, or any mounds or elevations which from their regularity suggest a suspicion of such an origin, if so, state the same particulars respecting them?
12. Are there any local names of Indian origin in your township or neighbourhood: if so, a list of them, indicating language to which they belong, their correct pronunciation, their interpretation or meaning, and the local circumstances on which they may appear to be founded, will be highly acceptable?
13. Copies of any noteworthy native drawings or writings, such as those existing on what are called the pictured rocks of Lake Superior and Lake Huron, and generally drawings of any objects connected with the subjects of these enquiries, will be thankfully received.

ENQUIRIES REGARDING THE LIMESTONES OF CANADA.

Inasmuch as it does not appear that the Limestones of Canada have as yet been fully examined, by analysis or otherwise, in reference to their economical values, or classified for practical purposes, it has been determined by the Council of the CANADIAN INSTITUTE, to collect for its Museum, in aid of these objects, specimens of Limestones from the various localities within the Province; they accordingly request that all parties who, by residence or information, may be able to assist the Council in this matter, will be pleased to transmit to the Secretary of the Institute, replies to the accompanying questions, with specimens of the Limestones or Limes to which they refer; and to add to those specimens which are selected, as illustrating the economical uses more particularly in view, any which exhibit fossil remains of whatever kind.

The following is a list of the localities in which Limestones are known to exist,* extracted from a paper prepared by W. E. Logan, Esq., F.R.S., the President of the Institute.

Malden—Manitoulin Islands, along the south side—St. Joseph Island—coast of Lake Huron, from Cape Hurd to Rivière au Sable (north)—various parts from Cabot's Head to Sydenham, in Owen's Sound; and from Sydenham, by Euphrasia, to Nottawasaga; thence by Mono to Esquesing, and by Nelson to Ancaster—Thorold—Matchedash Bay—Orillia—Rama—Mara, and various parts of Marmora—Madoc—Belleville—Kingston—MacNab—Bytown, and various parts of Plantagenet and Hawkesbury—Cornwall—Isle Bizard—Beauharnois Island—Caughnawaga—Montreal—Isle Jesus—Terrebonne—Philipsburgh—St. Dominique—Grondines—Deschambault—

* NOTE.—The quantities in the localities indicated are not in every case of a sufficient amount to be profitably available, but they are always of sufficient importance to draw attention to the localities as a possible guide to the discovery of others in the vicinity where quantities may be greater.

Beauport—Bay St. Paul, and Murray Bay—Upton—Acton—Wickham—Stanstead—Hatley—Dudswell—Sennison Lake—Gaspé—Port Daniel—Richmond—Anticosti Island.

Hydraulic Lime is found at the following places :—Point Douglas, Lake Huron—Cayuga, $3\frac{1}{2}$ miles below the village, on the Grand River—Thorold—Kingston—Napean, near Bytown—Argenteuil.

Magnesian—Exit of Lake Mastinaw—North Sherbrooke, C. W.—Drummond—St. Armand—Deerham—Sutton—Ely—Durham—Melbourne—Kingsley—Shipton—Chester—Halifax—Inverness—Leeds—St. Giles Seigniory—St. Mary Seigniory—St. Joseph Seigniory.

Replies to the following questions or other information on the subject will be thankfully acknowledged :—

1st. The number of the specimen referred to (if any be forwarded).

2nd. The name of the locality (No. of the lot, concession, and name of township and county) from which the same has been taken.

3rd. The geological position of the bed, its thickness, dip, superior and inferior strata, the nature of the surface soil, &c., &c., &c., if known.

4th. The analysis : if it has been ascertained.

5th. Whether it exists in quantity and position to warrant its economical use as an article of commerce, and the facilities for transportation.

6th. Whether it exhibits any hydraulic properties, and to what extent.

7th. If Lime has already been manufactured from the stone referred to—transmit a sample—and state the manner of its manufacture—if peculiar—and in what works the same has been used.

*** Replies to the foregoing Inquiries, and any Specimens of the objects referred to, to be addressed to "THE SECRETARY OF THE CANADIAN INSTITUTE, TORONTO."*

PROSPECTUS.

THE CANADIAN JOURNAL;

A Record of the Proceedings of the Canadian Institute,
AND A REPERTORY OF INDUSTRY, SCIENCE AND ART.



THE objects of this Journal are essentially of a useful character. It is intended to minister to the wants, and to promote the interests of a young, yet enterprising and rapidly advancing people, and to fill up a blank in Canadian literature, the existence of which has been deeply regretted, and has of late been most seriously felt by artisans, manufacturers, and the public generally throughout the Provinces. There are, indeed, many political publications in which there may occasionally be found a brief notice of, or a few insulated facts respecting, some new triumph in science, or some new success in art, but there is as yet no Provincial periodical, the pages of which are devoted solely to the pursuit and development of those subjects—no connecting medium with the ARTS AND SCIENCES, as they flourish in Europe—no direct literary evidence of their existence here. It is therefore proposed to occupy this vacant field in Canadian Periodical Literature, by supplying such a publication as will afford a medium of communication between all engaged or interested in Scientific or Industrial pursuits—will assist, lighten, and elevate the labours of the mechanic—will afford information to the manufacturer, and generally minister to the wants of that already numerous, and still increasing class in British America, who are desirous of becoming acquainted with the most recent inventions and improvements in the Arts, and those scientific changes and discoveries which are in progress throughout the world—a knowledge, not only desirable but *necessary*, to all who entertain any desire to keep pace with that rapid march of intellect, which so strongly and pointedly characterises the progress of modern civilization.

The Canadian Journal will be the direct and official organ of the CANADIAN INSTITUTE, and the medium of publication of its transactions, so paged, however, that they can be bound separately, if desired. As such, it will be delivered to all resident members, being subscribers of Twenty Shillings per annum, and to non-resident members, being subscribers of Fifteen Shillings per annum. It will, at the same time, be the advocate, the supporter, and the organ of MECHANICS' INSTITUTES, and all Societies of a Scientific character. The transactions of these, and all matters relative to their interests, with reports of the best and most useful Lectures delivered at these Institutions, will be found in its pages, thus affording a new incentive to Lecturers to improve the character and usefulness of their discourses, by giving to them a wider and more enduring circulation. Professing to be the supporter of INDUSTRIAL EXHIBITIONS, the JOURNAL will contain careful reports of their several excellencies, with occasional Illustrations of the superior and most useful articles: thus bringing them more prominently to public notice, inciting increased zeal and emulation amongst Exhibitors, and contributing to the maintenance, extension, and permanent establishment of these most desirable Institutions.

Beside the diffusion of practical information, for the benefit of the engineer, the architect, the surveyor, the machinist, the artisan, a great aim of this publication will be the cultivation and promotion of a taste for ART amongst all classes of society—nothing having a more salutary or

direct effect in refining and elevating the mind. This effort will constitute an essential feature in the JOURNAL, in which it is intended to republish, from time to time, such works connected with the FINE ARTS, or such new and approved Designs connected with the various branches of Mechanical Industry, as may appear in European works. In its pages will also occasionally be found views of the Public Buildings and Engineering Works of the Province, accompanied by descriptive letter-press: and notice will appear of new inventions and improvements in Mechanical Engineering as applied to marine, railway, and other machinery. It is further intended to publish a record of all Patents issued in the Province, accompanied by occasional illustrations, and also to furnish copious notes of those obtained in Great Britain or the United States, which may have any bearing on the interests represented by the JOURNAL. The regular publication (under authority) of the Meteorological observations, recorded at the Royal Observatory at Toronto, and of the reports and investigations connected with the Geological Survey of the Province, will give to the Journal an important utility; whilst the publication of information relative to the construction of Roads, Railways, and Canals; the reports of Public Meetings held in connection with such enterprises; together with all Local Intelligence of a Scientific or Industrial character, will impart additional interest to the Periodical. Finally, copious extracts from, and probably, in some cases, entire re-prints of the most valuable articles of a fitting character, appearing in the best European Magazines, will give a sterling value to the work, which can scarcely fail to render it generally acceptable, and worthy of an extensive support.

With respect to the Illustrations, the promoters have much pleasure in stating, that they have secured the services of some of the best Artists in the Province, in their several departments of Art; they are therefore confident, that the different Engravings, whether on copper, wood, or stone, will be produced in the best style that the Province can afford; and as the Editorial and general management of the Publication will be undertaken entirely gratuitously, the amount of subscriptions paid will be devoted, without deduction, to its artistic and mechanical execution. The progressive improvement and extension of the work, will therefore depend upon and be commensurate with the support which may be accorded to it by the public, and the degree to which the CANADIAN INSTITUTE may be successful in soliciting and combining the talents of those classes to which it appeals—if that support be generous, the promoters have every hope that the *Canadian Journal* will do credit to the Province.

The Publication will be conducted by the Council of the CANADIAN INSTITUTE at Toronto. Many able gentlemen have already volunteered their valuable assistance and co-operation, as permanent contributors to the work. The suggestions and correspondence of others friendly to the undertaking, are respectfully and urgently requested, especially with a view to the transmission of intelligence, and to the illustration and description of new inventions, public buildings, or other works of interest in the locality with which they may be connected.

The JOURNAL will be published in monthly parts, in size, and on paper, similar to that on which the Prospectus is printed. Each number will contain 24 pages, double column, to be gradually extended as the success of the work advances. The price will be 15s. per annum, payable in advance.

An advertising sheet will accompany each number, which is expected will afford a desirable medium for the advertisements of all parties connected with Art, Science or Manufactures; insertions subject to the following charges:—

One eighth of a column, first insertion.....	£0 5 0	Half a column, first insertion.....	£0 15 0
Each subsequent insertion.....	0 1 3	Each subsequent insertion.....	0 3 9
One quarter of a column, first insertion.....	0 8 9	One column, first insertion.....	1 5 0
Each subsequent insertion.....	0 2 0	Each subsequent insertion.....	0 6 3

Professional Cards, not exceeding six lines, 10s. per annum.

All communications to be addressed to "The Secretary of the CANADIAN INSTITUTE, Toronto," and all letters must be prepaid.

TORONTO, June 1, 1852.